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10/799,098	03/12/2004	Holger Edinger	A-3930	7618

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LERNER GREENBERG STEMER LLP
P O BOX 2480
HOLLYWOOD, FL 33022-2480

EXAMINER	
MORRISON, THOMAS A	

ART UNIT	PAPER NUMBER
3653	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/799,098	EDINGER, HOLGER	
	Examiner	Art Unit	
	THOMAS A. MORRISON	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-8,12,13 and 15-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-8,12,13 and 15-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 3-5 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 depends from claim 1. Claim 1 recites “a sheet transport direction”. After this, claim 3 recites “a sheet transport direction”. It is unclear if the recited “a sheet transport direction” in claim 3 is the same or different from the previously recited “a sheet transport direction” in claim 1.

Claim 15 depends from a canceled claim 14. As such, it is unclear what limitations are included in claim 15.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,522,388 (Heine et al.)(hereinafter “Heine").

Regarding claim 1, Fig. 6 of Heine discloses a method for guiding sheets to a sheet processing machine, which comprises the step of:

generating an overlapping stream of sheets (column 6, lines 34-37) guided over a table (table shown in Fig. 6) in a sheet transport direction (sheet movement arrow in Fig. 6);

reducing an adhesion force (e.g., reducing adhesion via element 80) between two sheets following one another in the overlapping stream by lifting a sheet trailing edge of a first sheet with a blown air jet (80) aimed in the sheet transport direction blown out substantially tangentially over the first sheet. See column 6, lines 54-60 and column 7, lines 9-15. In particular, column 7, lines 9-15 explain that the angle of air from the air jet (80) can be varied over wide limits. As such, it is the examiner's position that the

apparatus in Fig. 6 of Heine et al. can inherently be varied such that the blown air jet (80) is aimed in the sheet transport direction substantially tangentially over the first sheet.

Also, Fig. 6 and column 6, lines 54-60 disclose lifting the sheet trailing edge of the sheet by blowing under the sheet from behind the sheet.

Regarding claim 3, column 6, lines 50-60 disclose aligning the first sheet in a sheet transport direction before the sheet trailing edge of the first sheet is lifted.

3. Claims 6-7, 12-13 and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,863,272 (DiNatale et al.)(hereinafter "DiNatale").

Regarding claim 6, Figs. 1-3 discloses an apparatus for guiding sheets to a sheet processing machine, the apparatus comprising:

a lifting device (including 140) for reducing an adhesion force between two sheets following one another in an overlapping stream by lifting a sheet trailing edge of a first sheet, the lifting device (including 140) disposed above the first sheet of the overlapping stream, the lifting device (including 140) including at least one nozzle (upper part of 416) with an air jet aimed in a sheet transport direction (left to right in Figs. 1-3) substantially tangentially over the first sheet of the overlapping stream, and the lifting device having a free jet nozzle (including 415) in addition to the nozzle (upper part of 416), the free jet nozzle (including 415) being aimed at the overlapping sheet stream obliquely from above in the sheet transport direction.

Regarding claim 7, Fig. 3 discloses a front edge alignment device (including 121), the lifting device (including 140) being disposed at a distance of a sheet length to be processed from the front edge alignment device (including 121).

Regarding claim 12, Fig. 2 shows that the nozzle (upper part of 416) is formed as a blowing/suction nozzle and can be acted on with blown air.

Regarding claim 13, as best understood, the nozzle (upper part of 416) can be considered to be formed as a suction gripper and can be acted on with a vacuum. In as much as the blowing/suction nozzle of the instant application can be attached to some sort of vacuum source and then act like a suction gripper, so can element 416 of Heine.

Regarding claim 16, Figs. 1-3 disclose a printing press, comprising:

a sheet stack feeder (55);

a first lifting apparatus (including 58) for forming an overlapping stream and disposed adjacent the sheet stack feeder (55); and

a second lifting apparatus (including 140) disposed above a first sheet of the overlapping stream, the second lifting apparatus (including 140) being an air jet (upper part of 416) aimed in a sheet transport direction substantially tangentially over the first sheet of the overlapping stream, the second lifting apparatus having at least one nozzle (near 416 in Fig. 2), and the second lifting apparatus (including 140) having a free jet nozzle (including 415) in addition to the nozzle (near 416 in Fig. 2), the free jet nozzle

(including 415) being aimed at the overlapping sheet stream obliquely from above in the sheet transport direction.

Regarding claim 17, Figs. 1-3 show that the nozzle (near 416 in Fig. 2) and the free jet nozzle (including 415) are spaced apart from each other in the sheet transport direction.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heine as applied to claim 3 above, and further in view of U.S. Patent No. 4,886,261 (Jeschke). Heine discloses all of the limitations of claim 4, except for aligning the first sheet laterally at a same time as the sheet trailing edge of the first sheet is lifted.

Jeschke discloses that it is well known to align a sheet laterally using side walls (including 8 and 9) that extend vertically above the topmost sheet of a stack of sheets, for the purpose of keeping the sheets laterally aligned. See e.g., column 5, lines 10-61 and Fig. 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus shown in Fig. 6 of Heine with side walls for the purpose of keeping the sheets laterally aligned, as taught by Jeschke. Providing such walls on the device in Fig. 6 of Heine in a manner as taught by Jeschke will result

in an arrangement that will align the first sheet laterally at a same time as the sheet trailing edge of the first sheet is lifted.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heine as applied to claim 3 above, and further in view of U.S. Patent No. 3,624,807 (Schwebel).

Regarding claim 5, Heine discloses all of the limitations of claim 5, except for aligning the first sheet laterally after the sheet trailing edge of the first sheet is lifted.

Fig. 2 of Schwebel shows that it is well known to provide a sheet conveying apparatus with a plurality of nozzle assemblies (6, 7, 8 and 9) and spaced-apart side stops (4) for the purpose of aligning side edges of conveyed sheets. More specifically, Fig. 2 of Schwebel shows that the side stops (4) are positioned such that sheets enter the region where the nozzle assemblies (6, 7, 8 and 9) are located and such sheets are acted on by the nozzle assemblies (6, 7, 8 and 9) before coming into contact with one of the side stops (4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Heine apparatus with side stops for the purpose of aligning side edges of sheets conveyed on the Heine apparatus, as taught by Schwebel. Positioning side stops on the Heine apparatus in a manner as taught by Schwebel will result in the side stops being spaced away from incoming sheets such that the incoming sheets are laterally aligned after the sheet has already been acted upon by the nozzles (i.e., after the trailing edge has been lifted by the nozzle (80) of Heine). Thus, all of the limitations of claim 5 are met.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over DiNatale as applied to claim 7 above, and further in view of U.S. Patent No. 3,556,519 (Keller). Regarding claim 8, Figs. 1-3 of DiNatale disclose most of the limitations of claim 8, but do not explicitly disclose that the lifting device (including 140) can be adjusted in a sheet transport direction, as claimed.

Keller discloses that it is well known in the art to provide a lifting device (including 24) for reducing an adhesion force between two sheets following one another in an overlapping stream with adjusting means (column 4, lines 7-11), for the purpose of adjusting the position of the lifting device (including 24) with reference to a path along which sheets advance. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of DiNatale with a lifting device (including 140) having adjusting means, for the purpose of adjusting the position of such lifting device with reference to a path along which the sheets advance, as taught by Keller. Thus, this combination of references results in a lifting device that can be adjusted in a sheet transport direction to a sheet format to be processed, as claimed.

Response to Arguments

7. Applicant's arguments filed 3/28/2008 and 6/9/2008 have been fully considered but they are not persuasive.

Applicant argues

> The Heine reference discloses that an auxiliary blower (80) is located above the sheet path. The auxiliary blower is adjustable in the sheet path transport direction and it is pivotable about an axis. Therefore, Heine discloses the possibility to adjust the auxiliary blower. Heine discloses that the blower (80) may be a plurality of closely spaced nozzles extending

> the width of the sheet, or the blower may be a continuous slit extending across the width of the sheet. Heine discloses that the blower (80), as a whole may be adjusted.
> The present invention as claimed has two nozzles, where one is set to blow in a sheet transport direction substantially tangentially over the first sheet of the overlapping stream, and the other is aimed at the overlapping sheet stream obliquely from above in the sheet transport direction. The Heine reference can only meet the requirement of only one of the two nozzles at a time.
> The reference does not show reducing an adhesion force between two sheets following one another in the overlapping stream by lifting a sheet trailing edge of a first sheet with a blown air jet aimed in the sheet transport direction blown out substantially tangentially over the first sheet, and lifting the sheet trailing edge of the first sheet by blowing under the sheet from behind the sheet, as recited in claim 1 of the instant application. The Heine reference discloses an adjustable auxiliary blower. Heine does not disclose that the auxiliary blower can be simultaneously adjusted to blow tangentially over a sheet and under the sheet to lift the sheet from behind. This is contrary to the invention of the instant application as claimed, which recites reducing an adhesion force between two sheets following one another in the overlapping stream by lifting a sheet trailing edge of a first sheet with a blown air jet aimed in the sheet transport direction blown out substantially tangentially over the first sheet, and lifting the sheet trailing edge of the first sheet by blowing under the sheet from behind the sheet.
> Since claim 1 is allowable over Heine, dependent claims 3-5 are allowable over Heine as well.

In response, claim 1 recites "generating an overlapping stream of sheets guided over a table in a sheet transport direction; reducing an adhesion force between two sheets following one another in the overlapping stream by lifting a sheet trailing edge of a first sheet with a blown air jet aimed in the sheet transport direction blown out substantially tangentially over the first sheet; and lifting the sheet trailing edge of the first sheet by blowing under the sheet from behind the sheet." As such, claim 1, as now amended, does not require two different nozzles directed in two different directions.

Fig. 6 of Heine discloses a method for guiding sheets to a sheet processing machine, which comprises the step of: generating an overlapping stream of sheets (column 6, lines 34-37) guided over a table (table shown in Fig. 6) in a sheet transport direction (sheet movement arrow in Fig. 6); reducing an adhesion force (e.g., reducing adhesion via element 80) between two sheets following one another in the overlapping stream by lifting a sheet trailing edge of a first sheet with a blown air jet (80) aimed in the sheet transport direction blown out substantially tangentially over the first sheet. See column 6, lines 54-60 and column 7, lines 9-15. In particular, column 7, lines 9-15 explain that the angle of air from the air jet (80) can be varied over wide limits. As such, it is the examiner's position that the apparatus in Fig. 6 of Heine et al. can inherently be varied such that the blown air jet (80) is aimed in the sheet transport direction substantially tangentially over the first sheet. Moreover, Fig. 6 and column 6, lines 54-60 disclose lifting the sheet trailing edge of the sheet by blowing under the sheet from behind the sheet. In other words, the recited steps of **(1)** "reducing an adhesion force between two sheets following one another in the overlapping stream by lifting a sheet trailing edge of a first sheet with a blown air jet aimed in the sheet transport direction blown out substantially tangentially over the first sheet"; and **(2)** "lifting the sheet trailing edge of the first sheet by blowing under the sheet from behind the sheet" are both performed by the Heine apparatus. Thus, all of the limitations of claim 1 are met by Heine et al.

The rejections of dependent claims 3-5 are outlined above.

Applicant's arguments with respect to claims 6 and 16 and their dependent claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/
Supervisory Patent Examiner, Art Unit 3653

9/5/2008